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present invention are possible in the light of the above teachings. It is therefore to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. A wave analysis system which comprises:

- (a) a buoy,
- (b) at least one electrical calorimeter-telemetering system secured within said buoy,
- (c) a line secured to said buoy and extending vertically downwardly from said buoy,
- (d) at least one differential pressure transducer secured onto said vertically extending line secured to said buoy,
- (e) said differential pressure transducers equal in number to that of said electrical calorimeter-telemetering systems,
- (f) a separate variable resistor element controlled by one each of said differential pressure transducers,
- (g) said resistor element comprising a pair of resistors with a center tap providing a null position between said resistors and a movable arm normally positioned at said null position and movable along said resistors in electrical contact therewith on opposite sides of said null position,
- (h) an electrical power source with one side connected to said center tap of said resistor element and the other side of said electrical power source connected to the outer ends of each of said resistors,
- (i) each of said pressure transducers mechanically connected with said movable arm of one each of said separate variable resistor elements, whereby
- (j) said movable arm moves from said normal null position along said resistance element to supply different voltages to one each of said electrical calorimeter-telemetering systems in said buoy in accordance with any pressure change on said pressure transducer.

2. A wave analysis system which comprises:

- (a) buoy,
- (b) a plurality of electrical calorimeter-telemetering systems secured within said buoy,
- (c) a line secured to said buoy and extending downwardly vertically from said buoy,

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- (d) a plurality of equally spaced differential pressure transducers secured onto said vertically extending line connected to said buoy,
- (e) a separate variable resistor element controlled by one each of said plurality of said differential pressure transducers,
- (f) said resistor element comprising a pair of resistors with a center tap providing a null position between said resistors and a movable arm normally positioned at said null position and movable along said pair of resistors in electrical contact therewith on opposite sides of said null position and,
- (g) an electrical power source connected with one side to said center tap of said resistor element and the other side of said electrical source connected to the outer end of each of said resistors,
- (h) each of said plurality of pressure transducers mechanically connected with said movable arm of one each of said resistor elements, whereby
- (i) said movable arm moves from said normal null position along said resistance element to supply different voltages to one of each of said electrical calorimeter-telemetering systems in said buoy in accordance with any pressure change on said pressure transducer.

3. A wave analysis system as claimed in claim 2 wherein there are at least five pressure transducers and at least five electrical calorimeter-telemetering systems for telemetering information from said pressure transducers.

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